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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/837,293	04/19/2001	Ichiro Nakao	2001_0463A	9622

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EXAMINER

COUSO, YON JUNG

ART UNIT	PAPER NUMBER
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2625

DATE MAILED: 09/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/837,293

Applicant(s)

NAKAO ET AL.

Examiner

Yon Couso

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-12 is/are rejected.
- 7) ☒ Claim(s) 3 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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1. Applicant's arguments filed July 15, 2004 have been fully considered but they are not persuasive.

a. The objections made to the drawings and specification have been withdrawn in response to the amendment.

b. With regard to the newly added limitations "in the character string input area, the character string input area being composed of a single frame", even though Kawamura does not teach in details the character string input area being composed of a single frame, a single frame input area deemed to be a building block for the Kawamura's two frame input area. Moreover, Chisaka discloses the character string input area being composed of a single frame (figures 5a-5e). Given the references at the time the invention was made, it would have been obvious to one of ordinary skills in the art to modify Kawamura's two frame input area into less advanced single frame input area. Motivation to do so would be Kawamura's system would work with a single frame input area as well as two frame input area less judging means that decides which area has been utilized and Chisaka shows a system which operate with a single frame input area for carrying out the same including segmentation and erasing.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 1, 2, 4, and 6-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawamura et al (JP 11-025224) in view of (Chisaka US-5,864,636).

In regards to claim 1, Kawamura discloses a handwritten character recognition apparatus (drawing 1) having a character string input area (drawing 3, ref no 33) of a size that allows a plurality of characters to be handwritten thereon for a user to input a handwritten character string, the apparatus comprising: a coordinate string detection unit (ref no 16, paragraph 46 and 67) detecting a coordinate string of each stroke that makes up an input handwritten character string in the character string input area, an input completion judgment unit (paragraph 77) that judges, when a first coordinate of one of the strokes (stroke of the beginning of "being the weather", paragraph 77) is detected in a first area (ref 331-1, paragraph 77) which is at a side (note in drawing 3, ref 331-1 is on the "top" side of ref 33) of the character string input area (ref 33) where writing of the handwritten character string starts (note in drawing 8 and paragraph 69, the handwritten character string "it is fine today" is started in 331-1), whether an input of an immediately preceding handwritten character string ("it is good", paragraph 77) is complete, and a segmentation recognition unit (ref no 13, paragraph 44) that segments, when the input completion detection unit judges the input to be complete (paragraph 77), stroke strings for each character from all the strokes of the immediately preceding handwritten character string, recognizes each character (paragraph 78), and outputs a character string which is a recognition result (ref 311, drawing 10 and 11, and paragraph 78). Even though Kawamura does not teach in details the character string input area being composed of a single frame, a single frame input area deemed to be a

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building block for the Kawamura's two frame input area. Moreover, Chisaka discloses the character string input area being composed of a single frame (figures 5a-5e). Given the references at the time the invention was made, it would have been obvious to one of ordinary skills in the art to modify Kawamura's two frame input area into less advanced single frame input area. Motivation to do so would be Kawamura's system would work with a single frame input area as well as two frame input area less judging means that decides which area has been utilized and Chisaka shows a system which operate with a single frame input area for carrying out the same including segmentation and erasing.

In regards to claim 2, Kawamura further discloses the apparatus wherein the input completion judgment unit including: a first coordinate judgment unit (paragraph 77) judging, when an X value of a first coordinate of a stroke is X1 or less, X1 being a width of the first area, that the first coordinate is in the first area (paragraph 77).

Note that as shown in drawing 3 and paragraph 51, the top part of writing input area 33 is divided into two sections, 331-1 and 332-1. In paragraph 77, Kawamura judges completion when a user writes in 331-1, thus there is inherently a judgment unit distinguishing between 331-1 and 332-1. In other words, Kawamura judges, when an X value of a first coordinate (stroke of the beginning of "being the weather", paragraph 77) of a stroke is X1 (boundary between 331-1 and 332-1, drawing 3) or less, X1 being a width of the first area that the first coordinate is in the first area.

In regards to claim 4, Kawamura further discloses the apparatus wherein the input completion unit includes: an input time measurement unit (ref no 16, paragraph 66) measuring a first input time (next stroke, paragraph 66) which is an input time of a

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first coordinate of each stroke, and a second input time (note of the Nth current stroke, paragraph 66) which is an input time of a last coordinate of each stroke, and a time judgement unit (stroke input... beyond predetermined time, paragraph 79) judging, when a time difference between the first input time of a stroke and a second input time of an immediately preceding stroke is at least a predetermined time, that the input of the immediately preceding handwritten character string is complete (The character string recognition... is started, paragraph 79).

In regards to claim 6, Kawamura further discloses the apparatus wherein the input completion judgement unit includes: a stroke area judgement (paragraph 72) unit judging that the input of the immediately preceding character string ("Today's", paragraph 72) is complete when a first coordinate of a stroke thereof (notes of the stroke of the "good" beginning, paragraph 72) is in a second area (ref no 331-2, paragraph 71) which is an area at the opposite side ("bottom" of ref no 33) of the character string input area to the first area.

In regards to claim 7, Kawamura further discloses the apparatus further comprising: a display unit (ref no 33, drawing 3), positioned under a transparent tablet which makes up the character string input area, successively displaying strokes (drawings 8, 9, and 10) by linking the coordinates of each coordinate string detected by the coordinate string detection unit by line segments, and an area display control unit (ref no 19, paragraph 48) controlling a display state of the display unit so as to make the first area and the second area visually recognizable (ref no 331-1 and 331-2, drawing 3).

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In regards to claim 8, Kawamura further discloses the apparatus further comprising: a display unit (ref no 33, drawing 3), displaying a stroke (drawings 8, 9, and 10) by linking the coordinates of each coordinate string successively detected by the coordinate string detection unit, and an erasing unit (character string note frame 331-1 is eliminated, paragraph 75) operable to erase all strokes that make up the immediately preceding handwritten character string when the input completion judgement unit judges the input thereof to be complete.

In regards to claim 9, most of the elements set forth in this claim have been addressed in the argument of claim 7.

The additional limitation of the coordinate string detection unit being a transparent tablet is taught by Kawamura in paragraphs 48 and 69.

In regards to claim 10, Kawamura discloses a handwritten character recognition apparatus (drawing 1) having a character string input area (drawing 3, ref no 33) of a size that allows a plurality of characters to be handwritten thereon for a user to input a handwritten character string, comprising: a coordinate string detection unit (ref no 16, paragraph 46 and 67) detecting a coordinate string of each stroke that makes up an input handwritten character string, a display unit (ref no 33, drawing 3), positioned under a transparent tablet which makes up the character string input area, successively displaying strokes (drawings 8, 9, and 10) by linking coordinates detected by the coordinate value detection unit by line segments, the coordinate string detection unit being a transparent tablet (paragraphs 48 and 69), a first line segment erasing unit (character string note frame 331-1 is eliminated, paragraph 75) erasing line segments

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displayed in a judgement area (ref no 331-1, paragraph 75) which is an area a predetermined distance apart (distance between ref no 331-1 and ref no 331-2, drawing 3) from the last coordinate of a stroke (stroke being in ref no 331-2) detected by the coordinate string detection unit in a direction towards the side (note in drawing 3, ref 331-1 is on the "top" side of ref 33) of the character string input area (ref no 33) where writing of the handwritten character string starts (note in drawing 8 and paragraph 69, the handwritten character string "it is fine today" is started in 331-1), an input completion judgement unit (paragraph 77) judging, when the coordinate string detection unit detects the first coordinate of a stroke in the judgement area (stroke of the beginning of "being the weather", paragraph 77), that an input of an immediately preceding handwritten character string ("it is good", paragraph 77) is complete, a second line segment erasing unit (the hand on character string note frame 331-2 are eliminated, paragraph 78) erasing remaining line segments from the character string input area (ref no 33), excluding the line segments in the judgement area (drawing 9 and 10), and a segmentation recognition unit (ref no 13, paragraph 44) segmenting, when the input completion detection unit judges the input to be complete (paragraph 77), stroke strings for each character from all the strokes of the immediately preceding handwritten character string ("it is good", paragraph 77), recognize each character (paragraph 78), and output a character string which is a recognition result (ref 311, drawing 10 and 11, and paragraph 78).

In regards to claims 11 and 12, all the elements set forth in these claims have been addressed in the argument of claim 1.

3. Claims 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawamura et al (JP 11-025224, cited above, "Kawamura") in view of Chisaka as applied to claim 1, and further in view of Kamei (JP 01-068896 aka JP 64-68896, "Kamei").

In regards to claim 5, Kawamura discloses in paragraph 79 the time judgement unit judging that the input of the immediately preceding handwritten character string is complete when the input thereof ceases for a at least the predetermined time.

Kawamura does not expressly disclose the input completion judgement unit including: a judgement time setting unit operable to receive a setting of a predetermined time according to a speed of input of handwriting of the user.

Kamei teaches in the second-to-last line of the abstract, a judgement time setting unit operable to receive a setting of a predetermined time according to a speed of input of handwriting of the user.

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate Kamei's time setting unit into Kawamura's apparatus because it will provide the user with a customizable way to save effort by not having to push buttons or flip switches to begin character recognition processing.

4. Claim 3 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in light of the Examiner's Comments in independent form including all of the limitations of the base claim and any intervening claims.

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Mao et al is also cited.

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6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yon Couso whose telephone number is (703) 305-4779. The examiner can normally be reached on Monday through Friday from 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta, can be reached on (703) 308-5246. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

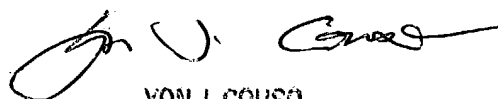
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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

YJC

A handwritten signature in black ink, appearing to read 'Yon J. Couso', written in a cursive style.

YON J. COUSO
PRIMARY EXAMINER

September 17, 2004